Final Technical Report

ONR Grant Number: N00014-90J1138

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Expendable Deep Ocean Mooring

Goal

The goal of this research was to provide an expendable mooring equipped with current meters for use in the deep ocean.

Accomplishments:

The mooring as developed contains current meters, a telemetry controller and a data storage unit. It is capable of being deployed for an extended period of time-a year or longer. At the end of the predetermined deployment period, the telemetry controller and data storage unit return to the surface and telemeter the data back to the investigator.
Data collection uses ARGOS telemetry when appropriate. When high-frequency radio transmission, cellular telephone, or packet satellite are appropriate, they can be implemented. The data transmitted from the surface module of the mooring are compressed so that the data which are judged most important by the investigator will be the first to be sent.
The data collection module has been field tested in more than 40 deployments of instruments. It has proven to be robust in design and capable of data collection under severe environmental conditions. The field testing to ensure that the module was satisfactory and well understood in its behaviour was a necessary step toward the deployment of expendable equipment.
A proposal to use ten of these developed moorings was written jointly with scientists at Texas A&M. It has been funded, and these moorings will be deployed in the Southern Ocean in 1996.

List of Publications

No publications were done for this grant. It was anticipated that the final product would be the expendable deep ocean mooring. That was accomplished.